

REMARKS

The Office Action mailed May 10, 2005 has been reviewed and carefully considered. Claims 1-3 remain pending, each independent, claim 2 having been withdrawn from consideration. Reconsideration of the above-identified application is respectfully requested.

Claim 1 stands rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 6,148,026 to Puri et al. ("Puri") in view of U.S. Patent No. 5,699,121 to Zakhor et al. ("Zakhor").

Since the matching pursuits (MP) algorithm is discussed in Zakhor, and since Puri relates to meshes, the Office Action apparently assumes it would have been obvious to apply matching pursuits to a mesh.

However, fitting atoms selected in MP to a mesh presents problems and would not have been obvious.

Secondly, matching pursuits is an iterative algorithm in which the input for the current iteration includes the difference between the error image of the previous iteration and the vector quantization codeword selected in that previous iteration. The outputs of an iteration are the selected codeword and the error image derived by subtracting the codeword.

Claim 1 refines "the current level mesh . . . towards a new mesh . . . then taken as input for a further level."

Even if matching pursuits were to be applied to a mesh, neither the error image nor the codeword could properly be characterized as a mesh.

It is thus unclear how the above-quoted aspect of claim 1 is thereby realized.

Thirdly, claim 1 recites, “a base layer encoding step, provided for receiving a couple of reference and current images N-1 and N and a coarse mesh . . .”

The Puri base layer encoder 510 does not receive a coarse mesh.

The Office Action hypothesizes that the Puri encoder 510 be implemented as the prior art encoder 110 that Puri mentions.

The Puri encoder 110, however, likewise does not receive a coarse mesh.

Moreover, Zakhor appears not to mention even the concept of a mesh.

The reasoning of the Office Action seems to involve some modification by Zakhor that purportedly provides a coarse mesh to the Puri base layer encoder 510.

Notably, however, the Puri base layer encoder 510 encodes motion vectors on a block basis, and to modify Puri otherwise would not have been obvious (see col. 3, lines 32-34; col. 4, lines 23-24).

If the Office Action is suggesting that the Puri base layer encoder 510 be modified to produce both block-based motion vectors and mesh-node based motion vectors, this would represent a workload from which Puri teaches away (col. 6, lines 64-67).

A base layer encoder that is not producing mesh-node based motion vectors apparently has no need for a coarse mesh.

It is at least conceivable that the Office Action contemplates modifying the Puri base layer encoder to convert block-based motion vectors to mesh-node based motion vectors, but the present applicants are unable to envision how this is done.

It is accordingly unclear what motivation would have existed to modify the Puri base layer encoder 510 that produces block-based motion vectors so that it receives a coarse mesh.

For at least all of the above reasons, the cited combination of references fails to render obvious the present invention as recited in claim 1. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 3 is an apparatus claim directly analogous to method claim 1, and accordingly is likewise deemed to distinguish patentably over the cited references, for at least the same reasons set forth above with regard to claim 1.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

Russell Gross
Registration No. 40,007



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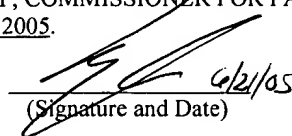
By: Steve Cha
Attorney for Applicant
Registration No. 44,069

Mail all correspondence to:
Russell Gross, Registration No. 40,007
US PHILIPS CORPORATION
P.O. Box 3001
Briarcliff Manor, NY 10510-8001
Phone: (914) 333-9624
Fax: (914) 332-0615

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Steve Cha, Reg. No. 44,069
(Name of Registered Rep.)



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